

In the Claims:

Please cancel all pending claims without prejudice. Please add the following new claims:

112. (New) A process for identifying a compound that modulates mammalian ATP-binding cassette transporter 1 (ABC1) polypeptide biological activity comprising contacting a compound with a ABC1 polypeptide that has ABC1 biological activity and in the presence of a lipid that binds to ABC1 polypeptides, under conditions promoting binding of said lipid to said ABC1 polypeptide, and detecting a difference in said binding following said contacting relative to when said compound is not present thereby identifying a ABC1 modulating compound.

113. (New) The process of claim 112 wherein the difference in binding is an increase in said binding.

114. (New) The process of claim 113 wherein said lipid is a phospholipid.

115. (New) The process of claim 112 wherein said lipid is cholesterol.

116. (New) The process of claim 115 wherein said cholesterol is part of high density lipoprotein (HDL)-cholesterol.

117. (New) The process of claim 115 wherein said cholesterol is part of a fragment of HDL-cholesterol wherein said fragment binds ABC1 polypeptides.

118. (New) The process of claim 112 wherein said ABC1 polypeptide is part of a cellular membrane.

119. (New) The process of claim 118 wherein said cellular membrane is part of an intact cell.

120. (New) The process of claim 119 wherein said cell is a human cell.

121. (New) The process of claim 119 wherein said cell is a recombinant cell.

122. (New) The process of claim 121 wherein said recombinant cell has been engineered to express an ABC1 polypeptide.

123. (New) The process of claim 122 wherein said recombinant cell does not express an ABC1 polypeptide without having been engineered to do so.

124. (New) The process of claim 119, 120, 121, 122, or 123 wherein said cell is a fibroblast.

125. (New) The process of claim 119, 120, 121, 122, or 123 wherein said cell is a macrophage.

126. (New) The process of claim 120 wherein said cell is present in an animal.

127. (New) The process of claim 126 wherein said cell is derived from a Wisconsin Hypo-Alpha Mutant (WHAM) chicken.

128. (New) The process of claim 113 wherein said increase in binding is an increase of at least 10%.

129. (New) The process of claim 113 wherein said increase in binding is an increase of at least 25%.

130. (New) The process of claim 113 wherein said increase in binding is an increase of at least 50%.

131. (New) The process of claim 112 wherein said mammalian ABC1 is mouse ABC1 (mABC1).

132. (New) The process of claim 113 - 130 wherein said mammalian ABC1 is mouse ABC1.

133. The process of claim 112 wherein said mammalian ABC1 is human ABC1 (hABC1).

134. (New) The process of claim 113 - 130 wherein said mammalian ABC1 is human ABC1.

135. (New) A process for identifying a compound that modulates mammalian ABC1 (ABC1) polypeptide biological activity comprising contacting a compound with a mammalian ABC1 polypeptide that has ABC1 biological activity and in the presence of adenosine triphosphate (ATP) under conditions promoting hydrolysis of ATP by said ABC1 polypeptide and detecting a difference in said hydrolysis following said contacting relative to when said compound is not present thereby identifying a ABC1 modulating agent.

136. (New) The process of claim 135 wherein said difference in hydrolysis is an increase in the rate of hydrolysis.

137. (New) The process of claim 135 wherein said mammalian ABC1 is mouse ABC1 (mABC1).

138. (New) The process of claim 135 wherein said mammalian ABC1 is human ABC1 (hABC1).

139. (New) A process for identifying a compound that modulates mammalian ABC1 polypeptide biological activity comprising contacting a compound with a mammalian ABC1 polypeptide that has ABC1 biological activity and in the presence of adenosine triphosphate (ATP) under conditions promoting binding of ATP to said ABC1 polypeptide and detecting a difference in said binding following said contacting relative to when said compound is not present thereby identifying a ABC1 modulating agent.

140. (New) The process of claim 139 wherein said difference in binding is an increase in said binding.

141. (New) The process of claim 139 wherein said mammalian ABC1 is mouse ABC1.

Sub E3 142. (New) The process of claim 139 wherein said mammalian ABC1 is human ABC1.

Sub D 143. (New) A process for identifying a compound that modulates mammalian ABC1 polypeptide biological activity comprising contacting a compound with a membrane comprising a mammalian ABC1 polypeptide, in the presence of a lipid that binds mammalian ABC1 polypeptides under conditions promoting transport of said lipid across said membrane and detecting a difference in said transport following said contacting relative to when said compound is not present thereby identifying a mammalian ABC1 modulating agent.

Sub E5 144. (New) The process of claim 143 further comprising contact with an acceptor that accepts the transported lipid.

145. (New) The process of claim 144 wherein said acceptor is an HDL-particle.

146. (New) The process of claim 144 wherein said acceptor is a component of an HDL-particle, said component being a member selected from the group consisting of ApoAI, ApoAII and ApoE.

7 147. (New) The process of claim ⁵144 wherein said acceptor is a phospholipid.

8 148. (New) The process of claim ⁴143 wherein said membrane is part of an intact cell.

Sub E6 149. (New) The process of claim 148 wherein said cell is a fibroblast.

10 150. (New) The process of claim ⁸148 wherein said cell is a macrophage.

11 151. (New) The process of claim ⁸148 wherein said cell is a recombinant cell.

152. (New) The process of claim 143 wherein said lipid is a phospholipid.

153. (New) The process of claim 143 wherein said lipid is cholesterol.

154. (New) The process of claim 143 wherein said cholesterol is part of HDL-cholesterol.

155. (New) The process of claim 143 wherein said cholesterol is part of a fragment of HDL-cholesterol wherein said fragment binds hABC1 polypeptides.

12 156. (New) The process of claim ⁴143 wherein said transport is cholesterol efflux.

13 157. (New) The process of claim ⁴143 wherein said mammalian ABC1 is mouse ABC1.

158. (New) The process of claim 144 – 156 wherein said mammalian ABC1 is mouse ABC1.

159. (New) The process of claim 143 wherein said mammalian ABC1 is human ABC1.

160. (New) The process of claim 144 – 156 wherein said mammalian ABC1 is human ABC1.

161. (New) A process for identifying a compound that modulates mammalian ABC1 polypeptide biological activity comprising contacting a compound with a membrane comprising a mammalian ABC1 polypeptide, and a source of one or more anions that bind to ABC1 polypeptides under conditions promoting transport of said one

Sub D4
or more anions across said membrane and detecting a difference in said transport following said contacting relative to when said compound is not present thereby identifying a mammalian ABC1 modulating agent.

Sub E9
162. (New) The process of claim 160 wherein said difference in anion transport is an increase in said transport.

163. (New) The process of claim 160 wherein when said one or more anions comprises at least two different anions.

Sub E
164. (New) The process of claim 160 wherein said mammalian ABC1 is mouse ABC1.

Subs
C16
165. (New) The process of claim 143 wherein said mammalian ABC1 is human ABC1.

Sub E11
166. (New) A process for identifying a compound that modulates mammalian ABC1 polypeptide biological activity comprising contacting a compound with a membrane comprising a mammalian ABC1 polypeptide, and interleukin-1 under conditions promoting transport of said interleukin-1 across said membrane and detecting a difference in said transport following said contacting relative to when said compound is not present thereby identifying a mammalian ABC1 modulating agent.

167. (New) The process of claim 166 wherein said mammalian ABC1 is mouse ABC1.

168. (New) The process of claim 166 wherein said mammalian ABC1 is human ABC1.

169. (New) A process for identifying a compound that modulates mammalian ABC1 polypeptide biological activity comprising contacting a compound with a mammalian ABC1 polypeptide that has ABC1 biological activity and in the presence of a

protein that binds to mammalian ABC1 polypeptides under conditions promoting binding of said protein to said ABC1 polypeptide, and detecting a difference in said binding following said contacting relative to when said compound is not present thereby identifying a mammalian ABC1 modulating agent.

170. (New) The process of claim 169 wherein said mammalian ABC1 is mouse ABC1.

171. (New) The process of claim 169 wherein said mammalian ABC1 is human ABC1.

Sub E12 172. (New) The process of claim 169 wherein said protein is casein kinase.

173. (New) The process of claim 161-172 wherein said membrane is part of an intact recombinant cell.

C16 Cont. 174. (New) The process of claim 120, 133, 134, 138, 142, 159, 160, 165, 168 or 171 wherein said human ABC1 polypeptide comprises amino acid residues 1-60 of SEQ ID NO: 1.

175. (New) (New) The process of claim 120, 133, 134, 138, 142, 159, 160, 165, 168 or 171 wherein said human ABC1 polypeptide comprises the amino acid residues of SEQ ID NO: 1.

Sub E 176. (New) A process for identifying a compound that modulates human ABC1 (hABC1) polypeptide biological activity comprising contacting a compound with a mutant hABC1 polypeptide, comprising from 1 to 5 amino acid differences relative to the sequence of SEQ ID NO: 1, and a ligand that binds to said mutant hABC1 polypeptide, said ligand being a member selected from the group consisting of a lipid, a protein, ATP, and interleukin-1, under conditions promoting binding of said ligand to said mutant hABC1 polypeptide and detecting a difference in said binding following said contacting

relative to when said compound is not present thereby identifying a hABC1 modulating agent.

177. (New) The process of claim 176 wherein said difference is the detection of said binding in the presence of said compound where no detectable binding occurs when said compound is not present.

²⁸
21 178. (New) The process of claim ~~176~~ wherein said mutant hABC1 polypeptide comprises a single amino acid difference relative to the sequence of SEQ ID NO: 1.

¹⁴
179. (New) The process of claim 112-178 wherein said hABC1 comprises a detectable label.

¹⁵
31 180. (New) The process of claim ~~179~~ wherein said detectable label is a fluorescent label.

¹⁵
181. (New) The process of claims 112-180 wherein said ABC1 polypeptide is a recombinant polypeptide.

182. (New) A process for identifying a compound that modulates triglyceride levels in an animal comprising administering to an animal an effective amount of a compound first identified as a modulator of ABC1 activity using a process of claims 112 to 181 and determining a difference in triglyceride level in said animal due to said administration.

183. (New) The process of claim 182 wherein said difference in triglyceride level is a decrease in plasma triglyceride level.

¹⁶
184. (New) A process for identifying a compound that modulates cholesterol levels in an animal comprising administering to an animal an effective amount of a compound identified as a modulator of ABC1 activity using an assay of claims 112 to

181 and determining a difference in cholesterol level in said animal following said administration.

185. (New) The process of claim 184 wherein said difference in cholesterol level is a decrease in plasma cholesterol level.

186. (New) The process of claim 184 wherein said difference in cholesterol level is an increase in plasma HDL-cholesterol level.

187. (New) The process of claim 182-186 wherein said animal is a mammal.

Sub E17
188. (New) The process of claim 187 wherein said mammal is a human.

C16
cond.
189. (New) A process for identifying a compound that modulates human ABC1 (hABC1) polypeptide biological activity comprising contacting a compound with a cell that expresses a hABC1 polypeptide, under conditions promoting said expression and detecting a difference in said expression in the presence of said compound relative to when said compound is not present thereby identifying a compound that modulates hABC1 biological activity.

190. (New) The process of claim 189 wherein said difference in expression is an increase in expression.

191. (New) The process of claim 189 wherein said difference in expression is the detection of expression where no detectable expression occurs when said compound is not present.

192. (New) The process of claim 189 wherein said cell is a recombinant cell.

Sub E18
193. (New) The process of claim 189 wherein said cell is a fibroblast.

194. (New) The process of claim 189 wherein said cell is a macrophage.